



**Figure S1** BGE-induced cytotoxicity and apoptosis in NCI-H1975 human lung cancer cells. NCI-H1975 cells were cultured for 48 hours in culture medium containing various concentrations of BGE (0, 0.5, 1, 2, 5, or 10 mg/mL). Cell viability was subsequently assessed using the Alamar blue assay. For apoptosis analysis, NCI-H1975 cells were cultured for 24 hours in either BGE-free culture medium or culture medium supplemented with 0.5 mg/mL BGE, followed by Annexin V/PI double staining and flow cytometric analysis. Cell viability decreased significantly in a dose-dependent manner with increasing concentrations of BGE (A). Furthermore, 17.69%±2.62% of cells treated with 0.5 mg/mL BGE were Annexin V/PI double-positive (C). In contrast, no double-positive cells were detected in the untreated control group (B). Data are presented as the mean ± SD from three independent experiments. <sup>a-c</sup>P<0.001. BGE, black ginseng extract; PI, propidium iodide; SD, standard deviation.